



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,369	09/17/2003	Mario Jovelino Del Nunzio	C4243(C)	4574

201 7590 02/24/2006

UNILEVER INTELLECTUAL PROPERTY GROUP  
700 SYLVAN AVENUE,  
BLDG C2 SOUTH  
ENGLEWOOD CLIFFS, NJ 07632-3100

EXAMINER

DOUYON, LORNA M

ART UNIT	PAPER NUMBER
----------	--------------

1751

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/664,369

Applicant(s)

DEL NUNZIO ET AL.

Examiner

Lorna M. Douyon

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-10 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1751

1. The **finality** of the rejection of the office action dated July 5, 2005 is withdrawn in view of the new grounds of rejections indicated below.
2. Claims 1-3, 5-10, 14-16 are pending.

***Claim Objections***

3. Claim 1 is objected to because of the following informalities: The limitation “solid surfactant particles of surfactant” in line 3 appears to be redundant. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because the “upper limits” in the limitation “wherein the carbonate and acid source make up at from 50 to 100 wt%, preferably from 60 to 99 wt%” of the granule in lines 2-3 is not consistent with the limitations of claim 1 wherein the granule further comprises from 3 to 8 wt% of solid surfactant particles.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1751

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5-10, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spadoni et al. (WO 98/46716), hereinafter "Spadoni" in view of Tadsen et al. (US Patent No. 5,527,489), hereinafter "Tadsen".

Spadoni teaches dry effervescent granules comprising an acid, carbonate source and optionally a binder and granular compositions containing the effervescent granules which is used for cleaning fabrics (see abstract; page 1, first paragraph), the acid is present at a level from 0.1% to 99%, preferably from 3 to 75% by weight of the total granule (see page 7, lines 7-10), the carbonate is present at a level from 0.1% to 99%, preferably from 45% to 85% by weight of the total granule (see page 7, 2nd line from last to page 8, line 2), and the binder is present at a level up to 50%, preferably up to 20% by weight of a binder such as anionic surfactants like C6-C20 alkyl or alkylaryl sulphates (see page 8, last paragraph). The diameter sizes of the dry effervescent granules are preferably from 0.001 mm to 7 mm, preferably less than 2 mm (see page 8, lines 9-10). The dry effervescent granules are preferably obtainable by a dry powder compaction or pressure agglomeration, and while all binding mechanisms can occur in pressure agglomeration, adhesion forces between the solid particles, i.e. between the acid, carbonate source and optionally the binder if present, play an especially important role (underlinings supplied; see page 6, second full paragraph). Spadoni also teaches a process of manufacturing the dry effervescent granules which comprises the steps of first mixing the acid, the carbonate source and optionally the binder together to obtain a mixture, the submitting the mixture to a pressure

Art Unit: 1751

agglomeration step to obtain agglomerated mixture and finally submitting the agglomerated mixture to a granulation step (see page 4, lines 14-21). Spadoni, however, fails to disclose (1) a laundry detergent composition comprising solid surfactant particles having the recited particle sizes, and (2) the melting point of the surfactant.

Tadsen teaches that particulate surfactants such as alkyl sulfate surfactants have a weight average particle size of from about 100 microns to 3500 microns, preferably from about 200 microns to 2000 microns (see col. 7, lines 31-46).

With respect to difference (1), it would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the binder such as alkyl sulphates which is in the form of solid particles to have a particle size from about 100 microns to 3500 microns because it is shown by Tadsen that a typical particulate alkyl sulphate surfactant possesses such particle sizes.

With respect to difference (2), it would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the anionic surfactants like C6-C20 alkyl sulphates of Spadoni to exhibit a melting point as those recited because similar alkyl sulfate surfactants having overlapping alkyl groups have been utilized.

7. In the alternative, claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spadoni in view of Tadsen as applied to the above claims, and further in view of "*The Condensed Encyclopedia of Surfactants*".

Spadoni in view of Tadsen teaches the features as described above. Spadoni in view of Tadsen, however, fails to specifically disclose the melting point of the surfactant.

*“The Condensed Encyclopedia of Surfactants”* teaches sodium salt of oleyl-cetyl (C18-C16) alcohol sulfate (Elfan 680) which has a melting point of 40°C (see page 145).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the anionic surfactants like C6-C20 alkyl sulphates of Spadoni and Tadsen to have a melting point within those recited because it is shown by *“The Condensed Encyclopedia of Surfactants”* that an anionic surfactant like oleyl-cetyl alcohol sulfate, sodium salt, which falls within this category has a melting point of 40°C.

#### ***Response to Arguments***

8. Applicants' arguments filed December 5, 2005 have been fully considered but they are not persuasive.

With respect to the rejection based upon Spadoni in view of Tadsen, Applicants argue that Spadoni does not teach the extremely small particle sizes (or any particle size) of solid surfactant particles to be included into dry effervescent granules; or the substantial absence of LAS surfactant from the granules. Applicants also argue that Spadoni teaches a broad list of binders and one of ordinary skill in the art would have had to try a multitude of formulations to come up with Applicants' invention. Applicants also argue that Spadoni illustrates dry effervescent granules containing LAS surfactant, if containing any surfactant at all, and that neither the broad teaching within Spadoni nor the concrete examples would have suggested Applicants' invention without the benefit of hindsight afforded by the present disclosure.

Art Unit: 1751

Applicants also argue that Tadsen teaches an extremely broad range of surfactant size of about 100 to 3,500 microns preferably from 200 to 2,000, whereas in the present invention particularly small-sized particles are used (150 to 800 microns).

The Examiner respectfully disagrees with the above arguments because on page 8, last paragraph, Spadoni teaches that the dry effervescent granules may optionally comprise a binder and suitable binders include anionic surfactants like C6-C20 alkyl or alkylaryl sulphonates or sulphates, preferably C8-C20 alkylbenzene sulphonates, among others. Please note that even though there are a number of binders to choose from, the sulphonates and sulphates are the first mentioned which indicates that these binders are preferred. It is also clear from these teachings that the alkylbenzenesulphonates are not the only anionic surfactants which are suitable as binders. Other suitable anionic surfactants include the alkyl or alkylaryl sulphates. Even though some examples have shown LAS, the reference is not limited to the working examples, see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982). Further, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments, see *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir. 1989); *In re Lamberti*, 192 USPQ 278 (CCPA 1976); *In re Kohler*, 177 USPQ 399. With respect to the particle sizes of the surfactants, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicants' claims because it has been held to be obvious to select a value in a known range by optimization for the best results. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*,

Art Unit: 1751

220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges “overlap or lie inside ranges disclosed by the prior art”, see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990); *In re Malagari*, 182 USPQ 549.

In response to applicants’ argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (571) 272-1313. The examiner can normally be reached on Mondays-Fridays from 8:00AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Lorna M. Douyon*  
Lorna M. Douyon  
Primary Examiner  
Art Unit 1751

*Douglas M. Ginty*  
Supervisory Primary Examiner  
Art Unit 1751